

RELATIVE LANDSLIDE POTENTIAL WITH GEOLOGIC AND GEOMORPHIC FEATURES MATTOLE RIVER WATERSHED, HUMBOLDT AND MENDOCINO COUNTIES, CALIFORNIA

King Range Terrane (Miocene to Late Cretaceous)

Igneous and sedimentary rocks of Point Delgada (Late Cretaceous) - Basaltic rocks, sandstone, minor argillite, and **Melange and (or) folded argillite of King Peak - Thin-bedded**, highly folded, predominantly argillitic sequences that exhibit subdued, irregular topography lacking a well-incised system of sidehill drainages. Highly folded, broken formation of King Peak -Thick- to thin-bedded arkosic sandstone and calcareous argillite that exhibit sharp-crested topography with well incised but irregular sidehill drainages.

Highly folded, largely unbroken rocks of King Peak - Sandstone and argillite that exhibit sharp-crested topography Limestone - Red to white, locally with planktic or benthic foraminifers; present locally as melange blocks, and as

Sheared and highly folded mudstone - Includes minor rhythmically interbedded sandstone, locally with lenses of conglomerate. Exhibits irregular topography lacking a well-incised system of sidehill drainages.

Highly folded, broken mudstone, sandstone, and conglomeratic sandstone - Exhibits topography with sharp ridge-Highly folded, little-broken sandstone, conglomerate, and mudstone - Exhibits sharp-crested topography with a

Conglomerate - Polymict, well-rounded clasts that include volcanic, granitic, and less common metaclastic rocks. Central Belt (Paleocene? to Jurassic) Melange - Predominantly penetratively sheared, locally tuffaceous, scaly meta-argillite and less abundant blocks of

Broken formation - Bedded to massive, locally folded, rarely conglomeratic metasandstone and meta-argillite, with minor White Rock metasandstone (Paleocene and/or Late Cretaceous) - Arkosic metasandstone and minor meta-argillite, Limestone (Late to Early Cretaceous) - Red, pink, gray, or white foraminiferal limestone.

Basaltic rocks (Cretaceous and Jurassic) - Includes pillowed and non-pillowed flows, flow breccias, submarine tuff, and

* Franciscan Complex subdivisions from McLaughlin and others, 2000

1) The landslides and geomorphic features were mapped from 1984 WAC aerial photographs, nominal scale 1:31,680, and 2000 WAC aerial photographs, nominal scale 1:24,000. Field verification of landslide and

geomorphic features was very limited and mapping relied primarily on interpretation of aerial photographs. 2) The geology depicted on this map was modified from 1:100,000-scale source data (McLaughlin and others, 2000). Although the geology has been presented on this map at a scale of 1:24,000, the detail and accuracy of the bedrock and structural data are limited to the spatial resolution of the 1:100,000 scale in which

and inferred type of movement. The landslides are also classified according to the certainty of their existence as determined by analysis of aerial photographs. The various landslide designations are not intended to, nor should they be interpreted to imply, the relative stability of slopes involved. Please see Plate 2 for relative

5) The scale of this map limits the delineation of some features, and the map should not be substituted for

6) Information on this map is not sufficient to serve as a substitute for the geologic and geotechnical site investigations required under Chapters 7.5 and 7.8 of Division 2 of the California Public Resources Code. 7) Historical mapping by CGS (Spittler, 1983 and 1984; DMG, 1999) was considered and incorporated using current interpretive protocols for identifying and classifying geomorphic features and/or landslides. Historical mapping added directly to the Mattole River Watershed database is referenced in the electronic database with a citation to the North Coast Watersheds Mapping, digital compilation DMG CD 99-002 (DMG,

8) All small landslides (depicted on the map as points) inferred from review of the 1984 and 2000 aerial photograph sets and those mapped on CGS Open-File Reports (Spittler, 1983 and 1984) are shown on the

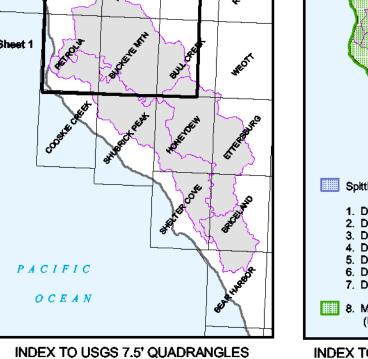
9) Digital data shown on this map as well as additional landslide and fluvial geomorphology data are available from the following sources: on the CGS website at www.conservation.ca.gov/cgs, on compact disc from CGS (CD-ROM 2002-09), or on the North Coast Watershed Assessment Program website at

California Division of Mines and Geology, 1999, North Coast Watersheds mapping, digital compilation DMG CD 99-002, California Department of Conservation, Division of Mines and Geology. McLaughlin, R.J., Ellen, S.D., Blake, M.C., Jr., Jayko, A.S., Irwin, W.P., Aalto, K.R., Carver, G.A. and Clarke, S.H., Jr., 2000, Geology of the Cape Mendocino, Eureka, Garberville and southwestern part of the Hayfork 30 x 60 minute quadrangles and adjacent offshore area, northern California, U.S. Geological Survey Miscellaneous Field Studies MF-2336, scale 1:100,000, 25 p. with digital data.

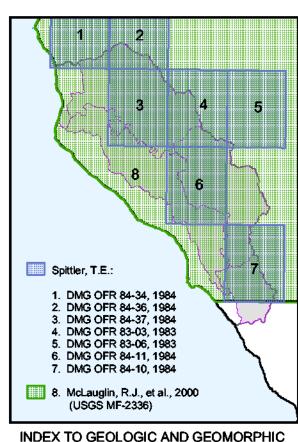
Spittler, T.E., 1984, Geology and geomorphic features related to landsliding, Briceland, Buckeye Mountain, Capetown, Honeydew, and Taylor Peak 7.5' quadrangles, Humboldt County, California: California Division of Mines and Geology Open-File Reports 84-10, 84-37, 84-34, 84-11, and 84-36,

WAC Corporation, Inc., 2000, Flight WAC-00-CA: roll 4, frames 1-15, 83-96, 164-167 and 173-175; roll 6. frames 1-21 and 95-113; roll 7, frames 1-15, 48-63, 88-104, 135-148, 165-177, 191-201 and 213-219; roll 9, frames 176-191; black and white, vertical, nominal scale 1:24,000, dated 3-31-00.

WAC Corporation, Inc., 2000, Flight WAC-00-CA: roll 10, frames 64-67, 70-75 and 77-81; black and white, WAC Corporation, Inc., 1984, Flight WAC-84C: roll 21, frames 42-54, 95-109, 131-142, 161-169, 185-193 and 203-217; roll 24, frames 64-78 and 160-171; roll 25, frames 75-85; black and white, vertical, nominal



INDEX TO SUBBASINS



North American Datum of 1983 (NAD83) Projection: Universal Transverse Mercator, Zone 10



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